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COMMITTEE ON PRIVATE FIRE PROTECTION SERVICES¹

MINORITY REPORT BY E. V. FRENCH²

The Committee on this subject made a report to the Buffalo Convention in June, 1919. I regret exceedingly that absence in France for a year on fire protection work for our army prevented my sharing in the work of this Committee, so that I was able to attend only one or two of the preliminary meetings.

The year has been an exceedingly busy one so that I have been absolutely unable to give this matter the study needed before covering satisfactorily several features upon which it seems to me desirable to bring out some further points, though considerable time has actually been spent upon the matter.

The report, as a whole, is, I think, the broadest and fairest presentation of the subject which has yet been made. I agree in general with the treatment of the physical questions which cover the first forty pages of the report as printed. In Division B, Fiscal Questions, which takes up the remainder of the report, there are some broad questions which it seems to me have not yet been worked through to final and surely correct conclusions. In my own field we propose to continue our investigations in a comprehensive manner and shall expect some months hence to be able to present some further ideas which, I believe, will be helpful in bringing this part of the problem to a final and generally satisfactory conclusion.

Returning to the physical questions, I would bring up the following additional points, using the divisions and headings of the main report.

(2) HOW SHALL THE WATER PURVEYOR BE PROTECTED, ETC.

Speaking from the side of fire protection engineering, I think we should recognize the desirability of more scientific and business-like operation of water departments, which means that the responsible

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officials must have proper knowledge and control of all uses of water. Several of the special meters which have been designed for fire services will give the information and control needed. Their use, however, is being pushed in some cases without discrimination as to the real needs, so that the large cost which they entail and the additional shut-offs for occasional repairs which they cause are being imposed where simpler means would give all the safeguarding necessary.

The thing which would most help this part of the problem would be the development of a simple and inexpensive device which would show about what passes through a fire service connection but without the need of the accuracy required for continuous commercial metering. But little water ever passes through the majority of fire service connections so that a device which would fulfill the above requirements would do all that is necessary in most cases. I believe we should encourage inventive minds to work in this direction and that it will be found possible to produce something which will fill this need satisfactorily.

The alarm check valve method suggested in the main report can be used to advantage in some cases but in other instances they have given trouble by false alarms so as to make such a method unsatisfactory.

Cultivation of common sense coöperation between water departments and the owners of private fire systems will help greatly and with this in many cases a good system of valve sealing or the adaptation of the methods which the Committee suggest, will cover all needs, at least until some good and simple device, which can be applied like an ordinary meter, is available.

(3) HOW SHALL PRIVATE FIRE PIPES BE CONTROLLED, ETC.

The general problem is well stated in the main report but it is desirable to recognize more fully the many large manufacturing plants which have had fire protection for years and where there are mill yards giving space for the safe location of controlling valves. It is in this class of property that private fire protection was first developed and in which it has reached its largest use. In practically all these cases it is feasible to get such certain control that there need be no fear of serious bleeding of a public supply.

This question of control is an engineering problem which must be worked out in many instances with due consideration to the special conditions but there is rarely any difficulty in conforming to the fundamental principles that reliable means of control should be provided on all outlets from public water systems.

It is desirable to recognize the growing importance of private fire protection in the control of the great fire waste of the country and after proper physical arrangements are made, it will be necessary for up-to-date water departments to have men trained who will go to fires the same as members of the public fire departments and see that the water supplied to fire systems is controlled properly and with due regard to both the burning property and the community as a whole.

(4) WHAT LIMIT SHOULD BE PLACED UPON THE SIZE, ETC.

The fundamental point here is to bring about the use of the water available for fire-fighting in the way which will most surely extinguish fires, prevent the destruction of property and the possible spread of a fire to conflagration extent and great community loss. The proposed 50 per cent limit would in some cases accomplish this, in others it would not safeguard the general water system, and in some further instances it would restrict the flow unnecessarily with no benefit to the system as a whole and with serious possible detriment to the particular property needing protection.

Such a limit would, therefore, have to be used with discretion and again it is necessary to apply good engineering knowledge and judgment. For the best results chief reliance must be upon proper means of control and a good system of handling such means of control in case of emergency, all along the lines outlined briefly in the preceding section (3). Here also it is possible that ingenious minds will devise some simple and reliable valve which will provide reasonable automatic control over such conditions but here again, as so often has been the case, it is difficult to find anything which will replace satisfactorily intelligent human control.

(5) WHAT MEANS SHALL BE ADOPTED TO PREVENT POLLUTION

The importance of this matter has been well set forth in the main report. Today there is nothing better than the simple arrangement of tandem check valves of special design illustrated fully in the

report coupled with regular and competent inspection of these devices. In our own field this arrangement was first used ten years ago and there are now over 500 services so equipped. They are tested regularly by our inspectors and we have never yet found a case where both check valves leaked. This method is not only the best now available but gives practically positive protection. It is a good example of the development and use of a simple idea and shows what can be done where such problems are taken hold of intelligently and pushed with persistence.

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The work of the Association has resulted in a distinct advance in the consideration of this general problem. I hope that the Convention will be willing to continue the Committee in order that a number of points regarding these physical questions may be developed further and more particularly so that we may have opportunity to study more fully the broad fiscal questions and arrive, as I believe will be possible, at final conclusions which can be adopted unanimously. With this done an important step will have been taken and a practical standard adopted for this whole important problem.